



5117

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/036,959A
Source: OIPE
Date Processed by STIC: 5-22-02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Does Not Comply
Corrected Diskette Needed
See Additional page 1
& page 6



OIPE

RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/10/036,959A

TIME: 11:30:00

Input Set : A:\CL1792 US NA Seq Listing.txt

Output Set: N:\CRF3\05222002\J036959A.raw

```

5 <110> APPLICANT: Hallahan, David
6   Keiper-Hrynko, Natalie
10 <120> TITLE OF INVENTION: Genes Involved in the Biosynthesis of Isopentenyl
Diphosphate in
11   Hevea brasiliensis Latex
15 <130> FILE REFERENCE: CL1792 US NA
C--> 19 <140> CURRENT APPLICATION NUMBER: US/10/036,959A
C--> 19 <141> CURRENT FILING DATE: 2002-05-10
19 <150> PRIOR APPLICATION NUMBER: 60/307,637
20 <151> PRIOR FILING DATE: 2001-07-25
24 <160> NUMBER OF SEQ ID NOS: 16
28 <170> SOFTWARE: Microsoft Office 97
32 <210> SEQ ID NO: 1
34 <211> LENGTH: 1233
36 <212> TYPE: DNA
38 <213> ORGANISM: Hevea brasiliensis
42 <400> SEQUENCE: 1
43 atgtctcctt cttcagattc tataaaccgc cgagatgttt gtatcgtggg tgttgcctgt      60
45 acgcctatgg gtggctttct tggttctctt tcttccttct cagctacaaa actcggttcc      120
47 atagctattc aggctgctct taaaagggca aacgtcgatc catctcttgt ccaagaggtc      180
49 ttctttggca atgttctcag tgctaattta ggacaagctc ctgcaaggca ggctgcttta      240
51 ggtgcgggta tacccaattc agtgatttgt accaccatta ataaagtttg tgcctcgggg      300
53 atgaaagcta ctatgcttgc tgcactgact attcaagtgg gtatcaatga tattgtttgt      360
55 gctgggtgaa tggaaagcat gtctaaccgc cccaaatatc ttgcagaagc aagaagggga      420
57 tctcgactag gacatgatac cattattgat ggcatgctga aagatggcct gtgggatgta      480
59 tataatgact ttggaatggg agtttgtgca gaaatatgtg ctgatcaaca taatattacg      540
61 agagaagaaa aggattctta tgccattcgg agctttgaac gtggaaattc tgcacaaaat      600
63 ggtggtgttt ttctctggga aatagttcct gttgaagttt ctgggggacg agggaaatca      660
65 gttatggttg ttgacaagga cgaaggttta ataaagtttg atgctgcaa actgaggaaa      720
67 ctgagaccaa ttcaagaagt tggttcgggt acagctggaa atgcttctat cataagtgat      780
69 ggtgcagctg cattagtcct ggtgagcgga gaaaaggcaa ttgagcttgg attgcaagtg      840
71 attgctagga taagaggata tggtagtgct gctcaggccc ctgagttatt tacaacagca      900
73 ccagcacttg cgataccaaa agctatttca aatgctgggt tggaggcttc ccagattgat      960
75 tattatgaaa taaatgaagc attttctgtt gtggcccttg ccaatcaaaa gatacttggt      1020
77 cttaatcctg aaaaattaaa tgttcatgga ggagctgtat ctttgggaca tccattagga      1080
79 tgcagtggag ctctatctt ggtcacatta ttaggggtac ttagacataa aaatggtgag      1140
81 tatggggttg ctgacatttg caatggaggt ggaggggcat ctgcccttgt tcttgagctc      1200
83 atgtcagttg gaagggtggg acgttcggtt tta                                     1233
86 <210> SEQ ID NO: 2
88 <211> LENGTH: 1392
90 <212> TYPE: DNA
92 <213> ORGANISM: Hevea brasiliensis
96 <400> SEQUENCE: 2
97 atggcaaaga atgtgggaat tctcgctgtg gacatctact ttctctctac ctttgttcag      60

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/036,959A

DATE: 05/22/2002

TIME: 11:30:00

Input Set : A:\CL1792 US NA Seq Listing.txt

Output Set: N:\CRF3\05222002\J036959A.raw

```

99  caggaagcac tggaggctca tgatggtgca agcaaagga aatacaccat tggacttggg 120
101 caggattgca tggcattttg tactgaggtg gaagatgtca tctcaatgag tttgactgca 180
103 gttacttcac tcctcgacaa gtataatatt gatcctaaac aaatcggtcg tctggaagtt 240
105 ggcagtgaga ctgtgatcga caagagcaaa tctattaaaa ccttcttgat gcaaattttc 300
107 gagaaattcg gaaacactga cattgaaggc gttgactcaa caaatgcatg ttatgggggg 360
109 actgcagctt tattcaactg tgtcaattgg gttgagagca gttcatggga tggacgctat 420
111 ggacttgtag tgtgtactga cagtgcggtc tatgcagagg gtccagcccg accaactgga 480
113 ggagctgcag ccattgcgat tttagtaggt ccagatgcac ctattgcttt tgaaagcaaa 540
115 tttaggggga gccatatgtc tcatgcttat gatttttaca agcccaacct ggctagttaa 600
117 tatccagttg tggatggcaa gctttcccaa acatgctacc tcatggctct tgattcttgc 660
119 tacaacatt tctgtgcaa gtatgagaaa tttgaaggca agcaattctc tatttctgat 720
121 gctgaatatt ttgtatttca ttctccttac aacaagcttg tacagaaaag ctttgctcgt 780
123 ttggtgttca atgactttgt gaggaatgcc agctctattg atgagactgc taaagaaaag 840
125 ctggcaccgt tttcaaattt atctggtgat gaaagctacc aaaaccggga tcttgaaaag 900
127 gtatcccaac aagttgccaa gcccctttat gatgcgaaag tgaaaccaac cactttgata 960
129 ccaaagcaag ttggcaatat gtacactgca tctttgtatg cagcatttgc atccctcctt 1020
131 cacagttaac atactgaatt ggcaggcaag cgggtgacac tgttctctta tgggagtggg 1080
133 ttgacagcca caatgttctc attgcgacta catgaaggcc aacatccctt tagcttgtca 1140
135 aacattgcat ctgtgatgaa tggtgcagga aagttgaagg caagacatga gcttcccca 1200
137 gagaagtttg tagacatcat gaagctaatt gagcaccggt acggagctaa agactttgtg 1260
139 acaagcaagg attgcagcct cttggcttct ggaacatact atctcacaga agttgacagc 1320
141 ttgtatcgaa gattctatgc ccagaaggct gttggcaaca cagttgagaa tggtttgctg 1380
143 gctaattggtc at 1392
146 <210> SEQ ID NO: 3
148 <211> LENGTH: 1974
150 <212> TYPE: DNA
152 <213> ORGANISM: Hevea brasiliensis
156 <400> SEQUENCE: 3
157 atggacacca cgggccggt ccaccaccga aagcatgcta caccggttga ggaccgttct 60
159 ccgaccactc cgaaagcgtc ggacgcgctt ccgcttcccc tctacctgac caacgcggtt 120
161 ttcttcacgc tgttcttctc ggtggcggtat tacctccttc accggtggcg cgacaagatc 180
163 cgcaactcca ctccccttca tatcgttact ctctctgaaa ttggtgctat tgtctccctc 240
165 attgcctctt tcatttacct cctaggattc ttcggtatcg attttggtgca gtcattcatt 300
167 gcacgcgcct cccatgacgt gtgggacctc gaagatacgg atcccaacta cctcatcgat 360
169 gaagatcacc gtctcgttac ttgccctccc gctaataat ctactaagac taccattatt 420
171 gccgcacctc ccaaattgcc tacctcgga cccttaattg cacccttagt ctcgaggaa 480
173 gacgaaatga tcgtcaactc cgtcgtggat gggaagatac cctcctattc tctggagtcg 540
175 aagctcgggg actgcaaacg agcggctgcg attcgacgcg aggctttgca gaggatgaca 600
177 aggaggtcgc tgggaaggctt gccagtagaa gggttcgatt acgagtcgat ttaggacaa 660
179 tgctgtgaaa tgccagtggg atacgtgcag attccgggtg ggattgcggg gccgttgttg 720
181 ctgaacggcc gggagtactc tgttccaatg gcgaccacgg agggttgttt ggtggcgagc 780
183 actaatagag ggtgtaaggc catttacttg tcaggtgggg ccaccagcgt tttgttgaag 840
185 gatggcatga caagagcgcc tgttgttaga ttcgcgtcgg cgactagagc cgcggagttg 900
187 aagttcttct tggaggatcc tgacaatttt gataccttgg ccgtagtttt taacaagtct 960
189 agtagatttg cgaggctcca aggcattaaa tgctcaattg ctggtgaaga tctttatata 1020
191 agattcagct gcagcactgg cgtgcaatg gggatgaaca tggtttctaa aggggttcaa 1080
193 aacgttcttg aatttcttca aagtgtttt tctgatattg atgtcatttg catctcagga 1140
195 aatttttgtt cggataagaa gcoctgctgt gtaaattgga ttgaaggacg tggcaaatca 1200
197 gttgtttgtg aggcaattat caaggaagag gtggtgaaga aggtgttgaa aaccaatgtg 1260

```

RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/10/036,959A

TIME: 11:30:00

Input Set : A:\CL1792 US NA Seq Listing.txt

Output Set: N:\CRF3\05222002\J036959A.raw

```

199 gcctccctag tggagcttaa catgctcaag aatcttgcgt gttctgctgt tgctggtgct 1320
201 ttgggtggat ttaatgcccc tgcaggcaac atcgtatctg caatctttat tgccactggc 1380
203 caggatccag cacagaatgt tgagagttct cattgcatta ccatgatgga agctgtcaat 1440
205 gatggaaaag atctccatat ctctgtgacc atgccctcca ttgaggtggg tacagtcgga 1500
207 ggtggaactc aacttgcata tcagttgctt tgtctcaatt tgcttggggg gaagggtgca 1560
209 aacaaagagt cgccaggatc aaactcaagg ctcccttgctg ccatcgtagc tggttcagtt 1620
211 ttggctgggtg agctctcctt gatgtctgcc attgcagctg ggcagcttgt caagagtcac 1680
213 atgaagtaca acagatccag caaagatatg tctaaagctg catcttagtg ggaatctggt 1740
215 cccagcaatg taaaatgata taaaataaaa tgtggcggag attgtttggg agagagagag 1800
217 aggaagggag ggatagagag agagagagag agagagagag tgagggggaa aagtcaaggc 1860
219 tgattgggtc ccatgtggga ttgtttagct gtcatagctg taaaatttgc tgttatatga 1920
221 agtatggaga taggaatgaa gcattgctaa tcatgctttg cctctccttc ttcc 1974
224 <210> SEQ ID NO: 4
226 <211> LENGTH: 1158
228 <212> TYPE: DNA
230 <213> ORGANISM: Hevea brasiliensis
234 <400> SEQUENCE: 4
235 atggaagtta aagcaagagc tccagggaaa atcattctct cgggtgaaca cgcagtggtg 60
237 cacggatcca ctgcagtcgc tgcattccatt aatctctaca cctatgtcac ctttctttt 120
239 gctactgctg agaatgata ttactgaaa cttcagctca aggatctggc actagaattt 180
241 tcatggccaa ttggtagaat cagagaggca ttatctaact taggtgctcc ttctcttca 240
243 acacgcaact ctgtctcgat ggaatcaatt aagacaattt cagctttggt tgaagaagaa 300
245 aatatccagc aggcaaaaat tgcactcaact tctggagtgt cagcctttt atggttatat 360
247 acttctattc aaggatttaa gcctgccacc gtagttgtca cttctgatct tccactgggt 420
249 tcaggcctag gatcatctgc tgcattttgt gttgccctct cagctgctct gcttgctttc 480
251 tcagactctg taaatgtgga cacaagcac ctagggtggt caatatttgg agagtctgac 540
253 cttgaattat taaacaaatg ggctctcgaa ggtgaaaaga taattcatgg aaagccatct 600
255 ggaatagaca acactgtcag cgcataatgg aacatgatca agttcaagtc tggtaatctg 660
257 actcgcatca agtccaacat gccgctcaaa atgctcgtca ctaacacaag agttgggagg 720
259 aacacaaaag cactggttgc tgggtgtttca gagagaacct tacggcaccc taatgccatg 780
261 agttttgttt ttaatgccgt tgattctatc agtaatgagc tggctaacat catccagtca 840
263 cctgctccag atgatgtgtc cataactgag aaggaagaga agctagaaga gttaatggaa 900
265 atgaatcaag gcttgcttca atgcatgggg gtcagccatg cttctataga aactgttctt 960
267 cggacaactt tgaaatacaa gttagcttcc aagctgactg gagcaggggg tggggggtgc 1020
269 gtgctgacac tgtttaccaac cctgctatca ggaacagttg ttgacaaagc aattgctgaa 1080
271 ttggagtcat gcggatttca atgtttgatt gctggaatcg gtgggaatgg tgttgagttt 1140
273 tgctttggtg gttcatcc 1158
276 <210> SEQ ID NO: 5
278 <211> LENGTH: 1509
280 <212> TYPE: DNA
282 <213> ORGANISM: Hevea brasiliensis
286 <400> SEQUENCE: 5
287 atggctgtag ttgcttctgc tccgggtaag gtgttgatga ctgggggtta cctcatattg 60
289 gaaagaccca atgcagggat tgtactcagc acaaatgctc gattctatgc cattgtgaag 120
291 cctatttacc atgaaatcaa acctgatagt tgggcatggg catggactga tgtgaaatta 180
293 acatctcccc aactagcaag ggaaagcttg taaaaattgt cactgaaaaa tttagctctt 240
295 cagtgtgtct cttcaagtgc atcaaggaac ccatttgtgg aacaagcagt gcaatttgc 300
297 gtagcagctg cacatgcaac acttgacaaa gataagaaga atgtcttaaa caagctactc 360
299 ttgcaaggtc ttgatattac aatattaggt accaatgact tctattcata ccgaaatgag 420

```

RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/10/036,959A

TIME: 11:30:00

Input Set : A:\CL1792 US NA Seq Listing.txt

Output Set: N:\CRF3\05222002\J036959A.raw

```

301 attgaagcat gtggactccc tttagacacca gaatcattgg ctgcacttcc ttctttttcc 480
303 tcaatcacct tcaatgtaga ggaagcaaact ggacaaaact gcaagcctga ggtagctaaa 540
305 actggattgg gttcatcagc agcaatgacc actgctgtag ttgctgcttt acttcatcac 600
307 cttggattgg ttgatctttc atcctcttgt aaagagaaga aattttctga tcttgatttg 660
309 gtacatataa tagcccaaac tgcccattgt attgcacaag ggaaagtcgg cagtggattt 720
311 gatgttagtt ctgcagttta tggcagtcac cgatacgtgc gcttctctcc agaagtgcct 780
313 tcctctgctc aggatgctgg gaaaggaatt ccattacagg aagtcatttc taacatccta 840
315 aaagggaaat gggaccatga gaggactatg ttttccttgc caccattgat gagcctgcta 900
317 ctaggtgagc caggaaactgg aggatcttcc acgccatcaa tggtaggtgc tctaaagaaa 960
319 tggcagaagt ctgatactca gaaatcccaa gaaacatgga gaaagttgtc agaggcaaat 1020
321 tcagcacttg aaacgcaatt caatatctta agcaagctcg cagaagaaca ttgggacgcg 1080
323 tataaatgtg tgatagacag ttgcagcaca aaaaactcag agaagtggat tgagcaggca 1140
325 actgaaccca gccgagaagc agttgttaaa gcattattag gatcaagaaa tgccatgctt 1200
327 cagatcagaa attacatgcg ccagatgggt gaggctgcag gtgttccgat agagcctgaa 1260
329 tcacagactc gacttttggg tactactatg aatatggatg gagtcttgtt ggctggagtt 1320
331 cctggagcag gtgggtttga tgcagtcttc gctgttacct taggggactc tggtagcaat 1380
333 gtggcaaaaag cttggagttc actcaatgtt ctggccctgt tggtagaga agacccta 1440
335 ggtgttttgt tagaaagcgg cgatccaaga accaaggaaa tcacaacagc tgtttttgca 1500
337 gttcatatt
340 <210> SEQ ID NO: 6
342 <211> LENGTH: 1245
344 <212> TYPE: DNA
346 <213> ORGANISM: Hevea brasiliensis
350 <400> SEQUENCE: 6
351 atggcggagt catgggtgat aatggtgact gcgcagacac ctactaatat agcagtgata 60
353 aaatactggg ggaagaggga tgagaagctt attttacctg ttaatgatag cataagtgtt 120
355 actctggatc ctgcacatct ttgtactacc actactgttg ccgtcagtc tagttttgct 180
357 caggatcgga tgtggcttaa tggaaaggag atttcccttt ctgggggag gtacccaaat 240
359 tgtttaaggg aaattcgtgc tcgagcctgt gatgttgagg ataaagaaa gggtatcaag 300
361 atttcaaaga aggattggga gaaattgtat gtacatataa ctatcataa caatttcctt 360
363 actgctgctg gattggcttc ttcagctgct ggttttgctt gtcttgtttt tgcccttgca 420
365 aagctgatga atgctaaaga agataatagt gagctttctg ctattgcaag acaaggttca 480
367 ggcagtgcct gtcgtagttt gtttgggtga tttgtgaagt ggaaaatggg aaaggttgag 540
369 gatggaagt acagccttgc tgttcaagtt gtagatgaga agcactggga tgatcttgtt 600
371 attattattg ctgtggtaag ttcacggcag aaagaaacga gtagcaccac aggaatgcgt 660
373 gagactgttg aaaccagctt gcttttgcaa catagagcta aggagatagt accaaaacgc 720
375 attgtacaaa tggaaagagtc cataaaaaac cgcaattttg catcttttgc acacttaaca 780
377 tgtgctgata gtaaccagtt ccattgctgc tgcattggata catgtcctcc aattttctac 840
379 atgaacgata catcacacag gataatcagc tgtgttgaaa aatggaatcg ttctgtagga 900
381 acacctcagg tggcttatac ttttgatgct gggcctaatt cagttcta at tgcacataat 960
383 aggaaggccg ctgcccagtt actgcagaag ctgcttttct atttccctcc aaattctgat 1020
385 actgaattaa acagttatgt tottggtgat aagtcaatac taaaagatgc tgggattgaa 1080
387 gatttgaagg atgtggaagc attgccacca cctccagaaa ttaaagatgc cccaagatac 1140
389 aaaggggatg ttagttattt catctgtaca agaccaggcc agggtcgggt tttgctctct 1200
391 gatgaaagtc aggtctctct cagccctgaa actgggctcc ctaaa 1245
394 <210> SEQ ID NO: 7
396 <211> LENGTH: 696
398 <212> TYPE: DNA
400 <213> ORGANISM: Hevea brasiliensis

```

RAW SEQUENCE LISTING

DATE: 05/22/2002

PATENT APPLICATION: US/10/036,959A

TIME: 11:30:00

Input Set : A:\CL1792 US NA Seq Listing.txt

Output Set: N:\CRF3\05222002\J036959A.raw

```

404 <400> SEQUENCE: 7
405 atggccccag cagcagcaac agcagtagcg gcagaaataa agcctagaga tgtttgcatt      60
407 gttggtgttg cccgcacacc gatgggtgga tttcttggtt cgctatgtac tttatctgcc      120
409 accaaactgg gatctatagc cattgaagct gctcttaaaa gggctaattgt tgatccatca      180
411 cttgtacaag aagttttctt tggaaatggt ctcaagtcta atttagggca ggctcctgct      240
413 agacaggctg cattaggtgc aggaattcct aattcagtggt tctgtaccac tgtaacaaa      300
415 gtttgtgctt cggggatgaa agcaactatg cttgcagccc agagtatcca gttaggcatc      360
417 aatgatgttg ttgttctggt aggcattggag agcatgtcca atgcacctaa atacctagca      420
419 gaagcaagga agggatctcg acttggacat gattcactag ttgatggaat gctgaaagat      480
421 gggttgtggg atgtttataa tgatgttggc atgggaagtt gtgctgaaat atgtgctgat      540
423 aatcattcaa taacgaggga ggatcaggat aaatttgcta ttcacagttt tgaacgcggt      600
425 attgctgcac aagaaagtgg tgcctttgca tgggaaattg ttccggttga agtttcgaag      660
427 gggcaaggag gaaactatga ctggcatgtg ggttgt      696
430 <210> SEQ ID NO: 8
432 <211> LENGTH: 411
434 <212> TYPE: PRT
436 <213> ORGANISM: Hevea brasiliensis
440 <400> SEQUENCE: 8
442 Met Ser Pro Ser Ser Asp Ser Ile Asn Pro Arg Asp Val Cys Ile Val
443 1 5 10 15
445 Gly Val Ala Arg Thr Pro Met Gly Gly Phe Leu Gly Ser Leu Ser Ser
446 20 25 30
448 Phe Ser Ala Thr Lys Leu Gly Ser Ile Ala Ile Gln Ala Ala Leu Lys
449 35 40 45
451 Arg Ala Asn Val Asp Pro Ser Leu Val Gln Glu Val Phe Phe Gly Asn
452 50 55 60
454 Val Leu Ser Ala Asn Leu Gly Gln Ala Pro Ala Arg Gln Ala Ala Leu
455 65 70 75 80
457 Gly Ala Gly Ile Pro Asn Ser Val Ile Cys Thr Thr Ile Asn Lys Val
458 85 90 95
460 Cys Ala Ser Gly Met Lys Ala Thr Met Leu Ala Ala Leu Thr Ile Gln
461 100 105 110
463 Val Gly Ile Asn Asp Ile Val Val Ala Gly Gly Met Glu Ser Met Ser
464 115 120 125
466 Asn Ala Pro Lys Tyr Leu Ala Glu Ala Arg Arg Gly Ser Arg Leu Gly
467 130 135 140
469 His Asp Thr Ile Ile Asp Gly Met Leu Lys Asp Gly Leu Trp Asp Val
470 145 150 155 160
472 Tyr Asn Asp Phe Gly Met Gly Val Cys Ala Glu Ile Cys Ala Asp Gln
473 165 170 175
475 His Asn Ile Thr Arg Glu Glu Lys Asp Ser Tyr Ala Ile Arg Ser Phe
476 180 185 190
478 Glu Arg Gly Asn Ser Ala Gln Asn Gly Gly Val Phe Ser Trp Glu Ile
479 195 200 205
481 Val Pro Val Glu Val Ser Gly Gly Arg Gly Lys Ser Val Met Val Val
482 210 215 220
484 Asp Lys Asp Glu Gly Leu Ile Lys Phe Asp Ala Ala Lys Leu Arg Lys
485 225 230 235 240
487 Leu Arg Pro Ile Ser Arg Ile Gly Ser Val Thr Ala Gly Asn Ala Ser

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/036,959A

DATE: 05/22/2002
TIME: 11:30:01

Input Set : A:\CL1792 US NA Seq Listing.txt
Output Set: N:\CRF3\05222002\J036959A.raw

Use of <220> Feature(NEW RULES):

Sequence(s) are missing the <220> Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence" or "Unknown". Please explain source of genetic material in <220> to <223> section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32) (Sec.1.823 of new Rules)

Seq#:16

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/036,959A

DATE: 05/22/2002

TIME: 11:30:01

Input Set : A:\CL1792 US NA Seq Listing.txt

Output Set: N:\CRF3\05222002\J036959A.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application No
L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1113 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:1113 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:

<210> 16

<211> 25

<212> DNA

<213> Artificial Sequence

see page 6



<400> 16

gcaatgtaac atcagagatt ttgag

25